Remarks

Claims 34-51 are pending. Favorable reconsideration is respectfully requested.

Claim 40 has been objected to and also rejected under 35 U.S.C. § 112 for failing to further limit the claim from which it depends. Claim 40 has been amended to depend from claim 34. Withdrawal of the objection to and the rejection of this claim under 35 U.S.C. § 112 is respectfully solicited.

Claim 48 has been rejected under 35 U.S.C. § 112, ¶ 1, for failure to comply with the written description requirement. The written description requirement has long been held not to require identity between the claim language and the specification, *i.e.* "*in haec verba*" support for the claim. The specification clearly describes water redispersible polymer powder compositions having a biocide "incorporated" therein, by spray drying. The Office's attention is directed to page 2, line 25, "biocide-containing", and page 8, line 38, to page 9, line 13, where the preferred method of incorporation is to mix the biocide with an aqueous dispersion of the redispersible polymer and to spray dry the dispersion. There is thus clear support for the language of claim 48, and withdrawal of the rejection of claim 48 under 35 U.S.C. § 112, ¶ 1, is respectfully solicited.

Claims 33-42 and 47 (now claims 34-42, 47, and 49) have been rejected under 35 U.S.C. § 102(b) as anticipated by Weitzel et al. U.S. published application 2003/0018121 ("*Weitzel*"). Applicants respectfully traverse this rejection.

Claim 33 has been cancelled and replaced with new claim 49. Claim 49 requires that at least one biocidal additive be included in the claimed water redispersible polymer powder composition, this biocidal additive being selected from the group consisting of bactericide actives, fungicide actives, and algicide actives. The entire thrust of the application is to add the individual active compounds directly to a water redispersible polymer powder, as can easily be recognized by one skilled in the art, to whom the specification and claims are directed. Support

may be found on page 2, line 30, and page 2, lines 33-34. The term "active" is a term of art which means the bactericide, fungicide, or algicide itself, *i.e.* neat, with no further additives. For example, a commercial herbicide containing 85% water, 1% emulsifier, 14% organic solvent and 1% of dicamba herbicide contains 1% "actives". This term has been used for many years, is the art recognized meaning, and is the meaning disclosed and intended by Applicants. That this is the art recognized meaning is confirmed by the Declaration of Dr. Weitzel.

Weitzel does not disclose using a biocide which consists of a biocide active. *Weitzel* is discussed at page 2, identified by the internal designation "WP 10105", at lines 16-17. It is clearly the intention of the Applicants to use uncomplexed biocides, in the form of the active itself, especially in view of this citation of *Weitzel.* *Weitzel* teaches that biocides or photoinitiators should be complexed with cyclodextrin before adding to the cementitious coating composition, thus teaching away from adding a solid biocide to a redispersible polymer powder.

The claims recite that the biocide must be present in the form of its "active", *i.e.* non-complexed, non-encapsulated, etc. The preferred method of incorporation is to add a dispersion of the active to a polymer dispersion prior to spray drying. The result is the claimed water redispersible polymer powder composition containing the solid biocide.

As can be seen from the discussion in *Weitzel* on page 4, ¶¶ [0035]-[0038], the cyclodextrin complexes are not prepared by spray dry drying, and they, after their preparation, are mixed in dry form into an aqueous polymer dispersion or into a spray dried water redispersible polymer powder. There is no teaching or suggestion of spray drying a non-complexed biocide with a redispersible polymer powder.

Weitzel, as indicated previously, teaches away from the claimed invention. Teaching away is strong evidence of non-obviousness. *W.L. Gore v. Garlock*, 220 USPQ 303 (Fed. Cir. 1983). Withdrawal of the rejection of the claims over *Weitzel* under 35 U.S.C. § 102(b) is respectfully requested.

Claims 34, 44, and 48 have been rejected under 35 U.S.C. § 103(a) over *Weitzel* in view of Botts et al. U.S. 7,070,795 ("*Botts*"). Applicants respectfully traverse this rejection.

Botts is non-analogous art and cannot be used in any combination of references used in rejecting the claims. The standards for determining whether a reference is analogous or non-analogous are set forth in *In re Clay*, 23 USPQ2d 1058 (Fed. Cir. 1992):

> Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); *In re Wood*, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979).
>
> The PTO argues that Sydansk and Clay's inventions are part of a common endeavor - "maximizing withdrawal of petroleum stored in petroleum reservoirs." However, Sydansk cannot be considered to be within Clay's field of endeavor merely because both relate to the petroleum industry. Clay's field of endeavor is the *storage* [leveling of semiconductor wafers] of refined liquid hydrocarbons. The field of endeavor of Sydansk's invention, on the other hand, is the *extraction* [introducing non-level structures] of crude petroleum. The Board clearly erred in considering Syndansk to be within the same field of endeavor as Clay's.

Here, the field of endeavor of the subject invention is curable mineral construction products, as indicated in the subject application in the in the Technological Field and Summary of Invention sections, and in the claims. *Botts* is not directed to this field of endeavor or anything even reasonably close. Rather, *Botts* is directed to the controlled release of agricultural chemicals (*Botts*, col. 1, lines 11-12; col. 2, lines 21-32). Thus, the first test of *Clay* is <u>not</u> met.

The problem solved by Applicants is the prevention of microbial growth in mineral construction products. The problem addressed by *Botts* is provided agricultural chemicals in a sustained release formulation which is not phytotoxic but which releases the

herbicide, fungicide or other agricultural active slowly over a prolonged period of time. The problem addressed and solved by Applicants is not hte same, nor is it related to the problem solved by *Botts*. The second test of *Clay* is not met, and therefore *Botts* is non-analogous, and is not a proper reference. Withdrawal of the rejection of the claims over *Weitzel* in view of *Botts* is respectfully solicited for this reason.

Moreover, *Weitzel* and *Botts* are not properly combinable. For a combination of references, there must be evidence of motivation to combine which is "clear and particular".

> In the case of *In re Anita Dembiczak* and *Benson Zinbarg*, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999), the CAFC has indicated that the requirement for showing the teaching or motivation to combine references is "rigorous." *Dembiczak* at 1617. Moreover, this showing, which is rigorously required, must be "clear and particular." *Dembiczak* at 1617. See also, *C.R. Bard v. M3 Sys., Inc.*, 48 U.S.P.Q.2d 1225, 1232 (Fed. Cir. 1998). It is well established that merely because references can be combined, the mere suitability for logical combination does not provide motivation for the combination. See, *Berghauser v. Dann, Comr. Pats.*, 204 U.S.P.Q. 398 (DCDC 1979); *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 U.S.P.Q. 929 (Fed. Cir. 1984). Moreover, mere conclusory statements supporting the proposed combination, standing alone are not "evidence". *McElmurry v. Arkansas Power & Light Co.*, 27 U.S.P.Q.2d 1129, 1131 (Fed. Cir. 1993). *See also, In re Lee*, 61 U.S.P.Q. 2d 1430 (Fed. Cir. 2002).

Here, there is no evidence of any motivation to combine, much less the "clear and particular" motivation required by law. *Botts* desires to provide encapsulated agricultural actives which release the active ingredient over a long period of time, so that plant growth is not destroyed (phytotoxicity). *Weitzel* is not concerned with plant growth at all, but is directed to preventing soiling of mineral coatings (facades). *Weitzel* prepares cyclodextrin complexes of biocides, not encapsulated biocides. The teachings of *Botts* and *Weitzel* are incompatible, as they teach totally different compositions. Withdrawal of the rejection of the claims over *Weitzel* in view of *Botts* is solicited for this reason.

Moreover, the claims require the biocidal ingredient to be present as the biocidal active itself, neither as a cyclodextrin complex nor as an encapsulated active. Thus, both *Weitzel* and *Botts* and any permissible combination thereof teaches away from the claimed invention. Teaching away is strong evidence of non-obviousness. *W.L. Gore, id.* Withdrawal of the rejection of the claims over *Weitzel* in view of *Botts* is solicited for this reason as well.

Claims 33-35 and 37-46 have been rejected for obviousness-type double patenting over claims 1-3, 5, 11-13, 15, and 17 of U.S. Patent 6,740,692 in view of *Botts*.

U.S. 6,740,692 is the issued patent corresponding to *Weitzel* 2003/0018121 which has been previously discussed. *Weitzel* teaches against using non-complexed biocides. Withdrawal of the double patenting rejection is respectfully solicited for this reason.

Claims 33-35 and 37-46 have been rejected under 35 U.S.C. § 103(a) over U.S. 6,740,692 (*Weitzel*). As indicated previously, *Weitzel* teaches the use of complexes of biocides with cyclodextrin, teaching away from the claimed invention. Withdrawal of this rejection is respectfully requested.

Claims 33-35 and 37-46 are indicated to be not patentably distinct from claims 1-3, 5, 11-13, 15 and 17 of the *Weitzel* patent. As previously discussed, this is incorrect (Applicants assume this paragraph of the Office Action is intended to be a rejection; respectfully note that no ground of rejection is set forth). As indicated previously, *Weitzel* requires cyclodextrin complexed biocides, and teaches away from the claimed invention. One can practice the *Weitzel* invention without infringing the claimed invention, and likewise one can practice the claimed invention without infringing *Weitzel*. Withdrawal of this rejection (?) is respectfully solicited.

The Office has not appropriately considered Applicants' showing. The inventive examples contained 10 to 20 times less biocide than the comparative examples, and yet the latter showed microbial growth, whereas the inventive examples did not. If "side-by-side" examples

using the same amount of biocide active as the inventive examples were performed, the microbial growth would have been much higher, as confirmed by the *Weitzel* Declaration. It is unreasonable to conclude otherwise. Moreover, it is clearly the incorporation of the biocide as a neat active, dry, into the polymer powder composition which is responsible for this effect, and not the redispersible polymer itself. Any redispersible polymer powder will show the same beneficial, surprising, and unexpected results, as also confirmed by *Dr. Weitzel.*

Applicants have also prepared biocide-containing redispersible polymer powder compositions with other than these polymers. These are as follows:

Example 5:

A polyvinyl alcohol-stabilized dispersion of a copolymer of vinyl acetate and ethylene having a glass transition temperature of -7°C is admixed with 10 parts (solid/solid) of a polyvinyl alcohol having a degree of hydrolysis of 88 mol% and a Höppler viscosity of 4 mPas and adjusted to a solids content of 35%. N-Octylisothiazolinone (in the form of Acticide OTW) is added to this dispersion in an amount corresponding to an active compound content of 750 ppm based on powder and the dispersion is spray dried.

Example 6:

A polyvinyl alcohol-stabilized dispersion of a copolymer of vinyl chloride, vinyl laurate, and ethylene having a glass transition temperature of +1°C is admixed with 10 parts (solid/solid) of a polyvinyl alcohol having a degree of hydrolysis of 88 mol% and a Höppler viscosity of 4 mPas and adjusted to a solids content of 35%. N-Octylisothiazolinone (in the form of Acticide OTW) is added to this dispersion in an amount corresponding to an active compound content of 750 ppm based on powder and the dispersion is spray dried.

Example 7:

A polyvinyl alcohol-stabilized dispersion of a homopolymer of vinyl acetate having a glass transition temperature of +30°C is admixed with 10 parts (solid/solid) of a polyvinyl alcohol having a degree of hydrolysis of 88 mol% and a Höppler viscosity of 4 mPas and adjusted to a solids content of 35%. N-Octylisothiazolinone (in the form of Acticide OTW) is added to this dispersion in an amount corresponding to an active

compound content of 750 ppm based on powder and the dispersion is spray dried.

All these compositions showed the same inhibition of microbial growth as the inventive examples in the specification. Submitted herewith is the Declaration of Dr. Weitzel describing these and the specification examples.

Applicants submit that the claims are now in condition for Allowance, and respectfully request a Notice to that effect. If the Examiner believes that further discussion will advance the prosecution of the Application, he is highly encouraged to telephone Applicants' attorney at the number given below.

Please charge any fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,

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